

IN THE CLAIMS

1. (previously presented) In an intake-air method of a spraying apparatus for humidification of intake air of an engine, said apparatus comprising at least one spraying nozzle (1a, 1b, 1c, 1d) in an intake duct of the engine for spraying a first pressure medium liquid and/or gas into the intake air, the improvements in that:

after supply of the first pressure medium liquid and/or gas for the spraying has been interrupted, a second pressure medium liquid and/or gas is conveyed to the nozzle, or the supply of the first pressure medium liquid and/or gas to the nozzle is continued at a substantially lower pressure to prevent clogging of the nozzle (1a, 1b, 1c, 1d).

2. (original) Method according to claim 1, characterized in that the second pressure medium is supplied into the feed channel (2a, 2b, 2c, 2d) of the nozzle (1a, 1b, 1c, 1d) at a pressure considerably lower than the pressure used for actual humidification of intake air.

3. (previously presented) Method in a spraying apparatus or humidifier for intake air, said apparatus comprising at least one spraying nozzle (1a, 1b, 1c, 1d) for spraying a first pressure medium liquid and/or gas into the intake air, characterized in that:

after a supply of the first pressure medium liquid and/or gas for the spraying has been interrupted, a second pressure medium liquid and/or gas is conveyed to the nozzle, or the supply of the first pressure medium liquid and/or gas to the nozzle is continued at a substantially lower pressure to prevent clogging of the nozzle (1a, 1b, 1c, 1d), and

the second pressure medium liquid and/or gas is introduced into a feed channel (2a, 2b, 2c, 2d) of the nozzle at a point between a valve element (A1, B1, C1, D1) and the nozzle (1a, 1b, 1c, 1d).

4. (previously presented) Method according to in a spraying apparatus or humidifier for intake air, said apparatus comprising at least one spraying nozzle (1a, 1b, 1c, 1d) for spraying a first pressure medium liquid and/or gas into the intake air, characterized in that

after a supply of the first pressure medium liquid and/or gas for the spraying has been interrupted, a second pressure medium liquid and/or gas is conveyed to the nozzle, or the supply of the first pressure medium liquid and/or gas to the nozzle is continued at a substantially lower pressure to prevent clogging of the nozzle (1a, 1b, 1c, 1d), and

the admission of the first pressure medium liquid and/or gas into the feed channel (25a, 25b, 25c, 25d) of the second pressure medium liquid and/or gas is prevented by a check valve (23).

5. (previously presented) Method according to in a spraying apparatus or humidifier for intake air, said apparatus comprising at least one spraying nozzle (1a, 1b, 1c, 1d) for spraying a first pressure medium liquid and/or gas into the intake air, characterized in that

after a supply of the first pressure medium liquid and/or gas for the spraying has been interrupted, a second pressure medium liquid and/or gas is conveyed to the nozzle, or the supply of the first pressure medium liquid and/or gas to the nozzle is continued at a substantially lower pressure to prevent clogging of the nozzle (1a, 1b, 1c, 1d), and

a supply pressure is maintained in the supply pipe (21) of the second pressure medium liquid and/or gas.

6. (canceled)

7. (previously presented) Apparatus in a spraying apparatus or humidifier for intake air, said apparatus comprising at least one spraying nozzle (1a, 1b, 1c, 1d) for spraying a first pressure medium liquid and/or gas into the intake air, characterized by

means for conveying a second pressure medium liquid and/or gas to the nozzle after supply of the first pressure medium liquid and/or gas to the nozzle has been interrupted to prevent clogging of the nozzle,

a pressure medium source or pump (20) pumping pressurized air, and

means for conveying the pressure medium from the pressure medium source to the nozzle (1a, 1b, 1c, 1d).

8. (previously presented) Apparatus in a spraying apparatus or humidifier for intake air, said apparatus comprising at least one spraying nozzle (1a, 1b, 1c, 1d) for spraying a first pressure medium liquid and/or gas into the intake air, characterized by

means for conveying a second pressure medium liquid and/or gas to the nozzle after supply of the first pressure medium liquid and/or gas to the nozzle has been interrupted to prevent clogging of the nozzle,

wherein the second pressure medium liquid and/or gas is conveyed using a pipeline (25a, 25b, 25c, 25d) connected in a nozzle feed channel (2a, 2b, 2c, 2d) at a point between a valve element (A1, B1, C1, D1) and the nozzle (1a, 1b, 1c, 1d).

9. (previously presented) Apparatus according to claim 8, characterized in that each pipeline (25a, 25b, 25c, 25d) used for supplying the second pressure medium is provided with a check valve to prevent the admission of the first pressure medium.
10. (canceled)
11. (previously presented) Method according to claim 3, characterized in that the second pressure medium is supplied into the feed channel (2a, 2b, 2c, 2d) of the nozzle (1a, 1b, 1c, 1d) at a pressure considerably lower than pressure of the intake air.
12. (previously presented) In an intake-air method of a spraying apparatus for reducing nitrogen oxide emissions of an engine, said apparatus comprising at least one spraying nozzle (1a, 1b, 1c, 1d) in an intake duct of the engine for spraying a first pressure medium liquid and/or gas into the intake air, the improvements in that:
- after supply of the first pressure medium liquid and/or gas for the spraying has been interrupted, a second pressure medium liquid and/or gas is conveyed to the nozzle, or the supply of the first pressure medium liquid and/or gas to the nozzle is continued at a substantially lower pressure to prevent clogging of the nozzle (1a, 1b, 1c, 1d).